

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-10 (canceled).

11. (Original): A method of removing a residual gas remaining in a gas inlet line connecting a mass flow controller and a chamber, the method comprising:

providing a low stress valve at one end of the gas inlet line and in flow communication therewith;

closing the low stress valve to cut off the gas supply between the mass flow controller and the chamber, thereby leaving a residual gas in the gas inlet line;

opening a vent valve connected to another end of the gas inlet line; and

pumping the residual gas through the vent valve and into the atmosphere.

12. (New): In a semiconductor device fabricating facility having a processing chamber, the combination of a gas supply apparatus that supplies processing gas to the processing chamber, and a residual gas removing system that removes residual gas from the gas supply apparatus,

wherein said gas supply apparatus comprises a plurality of sources of gas including at least one source of process gas, a low stress valve through which said plurality of sources of gas are connected to the processing chamber, said low stress valve being operative to selectively cut off and allow the supplying of gas to the processing chamber, a mass flow controller having an inlet connected to a said source

of process gas and an outlet, and a gas inlet line connecting the outlet of said mass flow controller to said low stress valve, and

wherein said residual gas removing system is in gas flow communication with said gas inlet line, and said residual gas removing system is vented to an environment outside of said gas supply apparatus, such that residual gas in the gas inlet line leading to said low stress valve can be removed from said gas inlet line.

13. (New): The combination as claimed in claim 12, wherein said residual gas removing system is connected to said gas inlet line upstream of said low stress valve with respect to said gas supply apparatus, and said residual gas removing system comprises a vent valve, and a pump connected to said vent valve so as to pump the residual gas through said vent valve.

14. (New): The combination as claimed in claim 12, wherein said gas supply apparatus includes a vent line connected to said plurality of sources of gas upstream of the inlet end of said low stress valve, said vent line venting to an atmosphere outside of the gas supply apparatus, and said residual gas removing system comprises a vent valve having an inlet connected to said gas inlet line and an outlet connected to said vent line, and a pump connected to said vent valve so as to pump the residual gas through said vent valve and out said vent line.

15. (New): The combination as claimed in claim 12, wherein said plurality of sources of gas includes a source of WF6.

16. (New): The combination as claimed in claim 13, wherein said plurality of sources of gas also includes a source of an inert carrier gas.

17. (New): A method of forming a tungsten silicide film, comprising:
disposing a substrate in a process chamber, the substrate having a film thereon comprising silicon;

subsequently opening a low stress valve having an outlet end connected to the process chamber, and an inlet end connected to a plurality of sources of gas via a gas inlet line, the sources of gas including a source of WF₆ gas and a source of an inert carrier gas;

controlling the flow of the WF₆ gas through the open low stress valve and into the process chamber using a mass flow controller disposed between the gas inlet line and the source of WF₆ gas;

subsequently closing the low stress valve to cut off the supplying of the WF₆ gas into the process chamber;

subsequently venting the gas inlet line to remove residual WF₆ gas therefrom;
and

subsequently opening the low stress valve, and allowing the inert carrier gas to flow therethrough into the process chamber.